

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 589 (RACETRACK ROAD) AND CATHELL ROAD IN WORCESTER COUNTY, MD 589 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA EIGHT-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 589 APPROACHES OPERATING CONCURRENTLY AND THE CATHELL ROAD APPROACHES OPERATING CONCURRENTLY.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IS PROVIDED FOR NORTHBOUND AND SOUTHBOUND MD 589.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING WILL BE PROVIDED FOR EASTBOUND AND WESTBOUND CATHELL ROAD APPROACHES.

A RIGHT-TURN OVER-LAP PHASE WILL BE PROVIDED FOR EASTBOUND CATHELL ROAD APPROACH.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.

STANDARD NO. MD-104.00 - 104.00-30 STANDARD NO. MD-104.45-01 (RIGHT LANE CLOSURE)
STANDARD NO. MD-104.37-01 (LEFT LANE CLOSURE) STANDARD NO. MD-104.46-01 (CENTER LANE CLOSURE)
STANDARD NO. MD-104.38-01 (RIGHT LANE CLOSURE) STANDARD NO. MD-104.48-01 (INTERSECTION TURN BAY LANE CLOSURE)
STANDARD NO. MD-104.41-01 (INTERSECTION FAR-RIGHT LANE CLOSURE) STANDARD NO. MD-104.49-01 (SHOULDER WORK)
STANDARD NO. MD-104.43-01 (SHOULDER WORK)
STANDARD NO. MD-104.44-01 (LEFT LANE CLOSURE)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

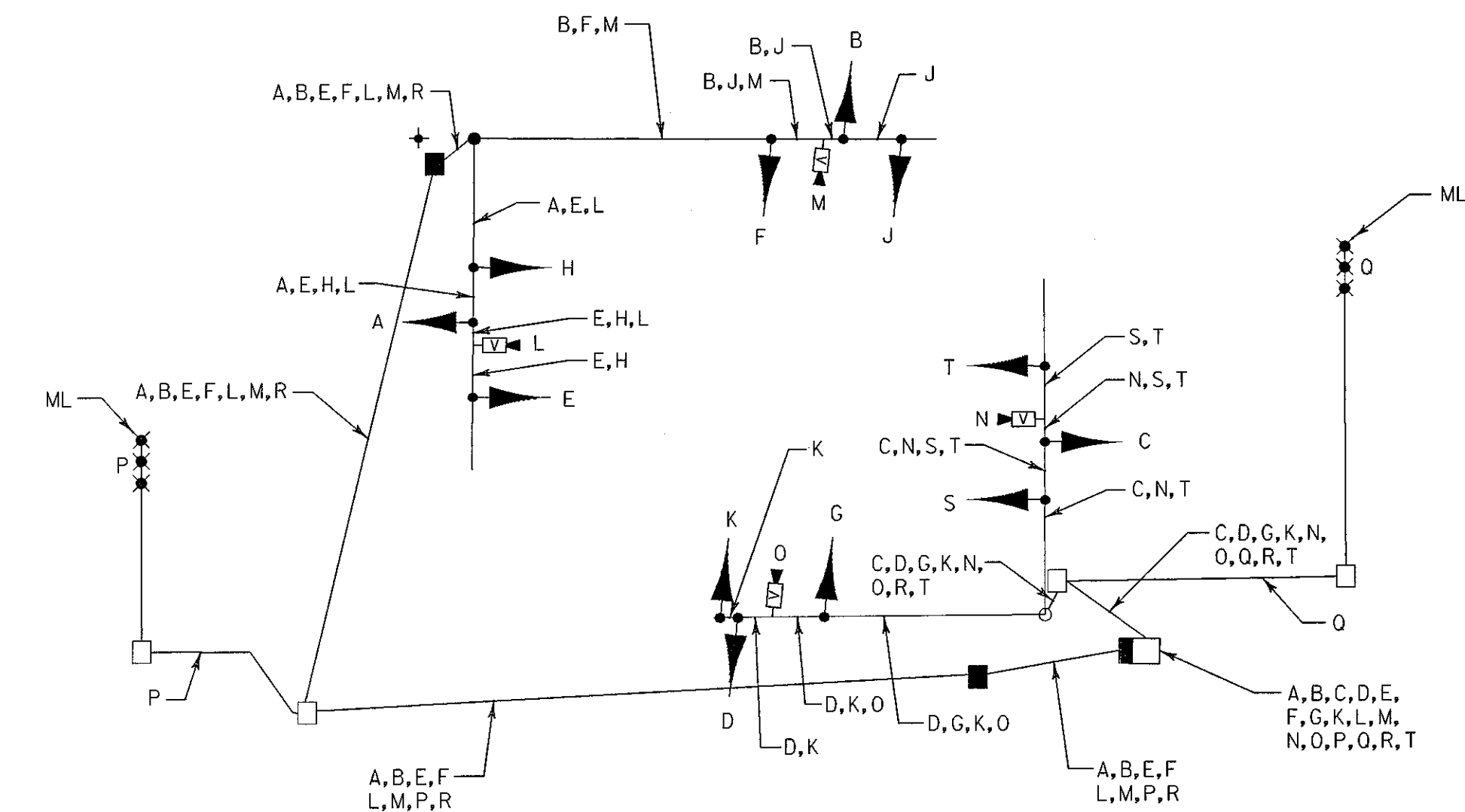
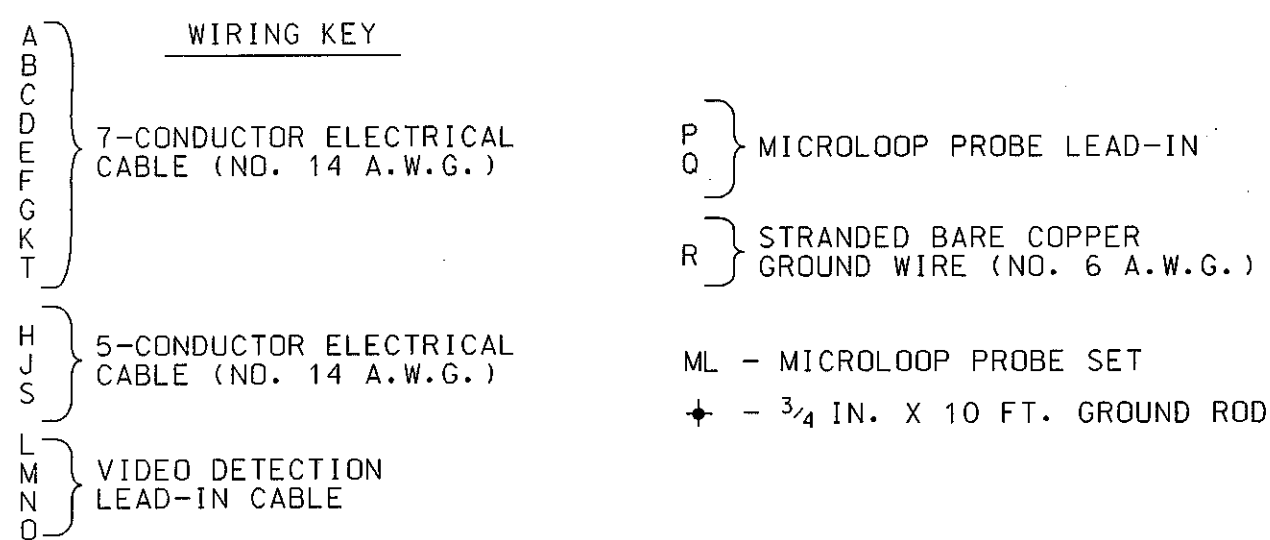
MR. GENE COFIELL
ASSISTANT DISTRICT ENGINEER - TRAFFIC
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MR. BRUCE W. POOLE
DISTRICT UTILITY ENGINEER
PHONE: (410) 677-4082

MR. JAMES R. WRIGHT
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 677-4010

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

WIRING DIAGRAM



EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

CAT. CODE	QUANTITY	DESCRIPTION
900000	1 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
900000	1 EACH	VIDEO INTERFACE EQUIPMENT
900000	1 EACH	BASE MOUNTED CABINET/CONTROLLER
900000	1 EACH	STEEL MAST ARM POLE WITH TWIN 50/70 FT. MAST ARM
973023	176 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF : - 4 EACH R10-12 SIGN (36 IN. x 42 IN.) - MAST ARM MOUNT - 4 EACH D-3(1) SIGN (VARIABLE x 16 IN.) DUAL FACED - MAST ARM MOUNT - 1 EACH ASSOCIATED SHIELD ASSEMBLY "NORTH, MD 589, RIGHT ARROW" (30 IN. x 51 IN.) - POLE MOUNT - 1 EACH ASSOCIATED SHIELD ASSEMBLY "NORTH, MD 589, LEFT ARROW" (48 IN. x 75 IN.) - POLE MOUNT - 1 EACH ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD 589, RIGHT ARROW" (30 IN. x 51 IN.) - POLE MOUNT - 1 EACH ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD 589, LEFT ARROW" (48 IN. x 75 IN.) - POLE MOUNT - 1 EACH R3-5L (30 IN. x 36 IN.) - MAST ARM MOUNT - 1 EACH R3-5R (30 IN. x 36 IN.) - MAST ARM MOUNT

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

ALL REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12
PHASE 1 + 5	R	R	R	R	R	R	R	R	R	R	R	R
1 + 5 CHANGE	G	G	G	G	G	G	G	G	G	G	G	G
PHASE 1 + 6	R	R	R	R	R	R	R	R	R	R	R	R
1 + 6 CHANGE	G	G	G	G	G	G	G	G	G	G	G	G
PHASE 2 + 5	R	R	R	R	R	R	R	R	R	R	R	R
2 + 5 CHANGE	G	G	G	G	G	G	G	G	G	G	G	G
PHASE 2 + 6	R	R	R	R	R	R	R	R	R	R	R	R
2 + 6 CHANGE	G	G	G	G	G	G	G	G	G	G	G	G
PHASE 3 + 7	R	R	R	R	R	R	R	R	R	R	R	R
3 + 7 CHANGE	G	G	G	G	G	G	G	G	G	G	G	G
PHASE 3 + 8	R	R	R	R	R	R	R	R	R	R	R	R
3 + 8 CHANGE	G	G	G	G	G	G	G	G	G	G	G	G
PHASE 4 + 7	R	R	R	R	R	R	R	R	R	R	R	R
4 + 7 CHANGE	G	G	G	G	G	G	G	G	G	G	G	G
PHASE 4 + 8	R	R	R	R	R	R	R	R	R	R	R	R
4 + 8 CHANGE	G	G	G	G	G	G	G	G	G	G	G	G
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
203030	2 CY	TEST PIT EXCAVATION
585624	125 LF	24 INCH WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
801004	5 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
802501	250 LF	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
805011	40 LF	FURNISH AND INSTALL 1 INCH GALVANIZED CONDUIT FOR DETECTOR WIRE SLEEVE
805118	200 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
805135	10 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805140	40 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
810550	1 EA	FURNISH AND INSTALL MICROLOOP PROBE SET WITH 500 FOOT LEAD-IN CABLE
810555	1 EA	FURNISH AND INSTALL MICROLOOP PROBE SET WITH 1000 FOOT LEAD-IN CABLE
811001	2 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813015	176 SF	INSTALL OVERHEAD SIGN
816001	4 EA	FURNISH AND INSTALL VIDEO DETECTION CAMERA
816005	2 EA	FURNISH AND INSTALL 250 FT. VIDEO DETECTION CABLE
816010	2 EA	FURNISH AND INSTALL 500 FT. VIDEO DETECTION CABLE
837001	1 EA	FURNISH AND INSTALL GROUND ROD - 3/4 INCH DIAMETER x 10 FOOT LENGTH
860270	12 EA	FURNISH AND INSTALL 8 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860272	42 EA	FURNISH AND INSTALL 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861107	70 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
861108	2000 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
862102	40 LF	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
866205	1 EA	INSTALL STEEL POLE AND TWIN MAST ARM, ANY SIZE
871202	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT
800000	1 LS	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
800000	2 EA	INSTALL CONDUIT (UP TO 4 INCHES) BEND IN EXISTING FOUNDATION

800000

LS

pullback and remove existing base-mount only



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety

TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION SHEET

INTERSECTION RECONSTRUCTION - MARYLAND ROUTE 589 AT CATHELL ROAD

DRAWN BY: B. MARTINE	F.A.P. NO. SEE TITLE SHEET	TS NO. TS-2290B	SHEET NO.
CHECKED BY: B. MARTINE	S.H.A. NO. W05035130	T.I.M.S. NO. F223	15 OF 15
SCALE: NONE	COUNTY: WORCESTER		
DATE: \$DATE\$	LOG MILE:		



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